

Application Serial No.: 09/721,586
Amendment Dated: February 12, 2004
Reply to Office Action Dated: November 12, 2003

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Original) A process for producing a preservative for applying to organic matter that will prevent the decomposition of the organic matter and enable it to be used for industrial purposes, comprising the steps of:

producing a decomposition resistant hydrous cellulose pulp, the individual fibers of which are coated with a thin wax film;

(a) filtering the decomposition resistant hydrous cellulose pulp through a very fine filter;

(b) adding potassium sorbate to the filtrate at a ratio of one part of filtrate to potassium sorbate that is in the range of 0.1% to 5% by weight;

(c) adding citric acid to the mixture in amounts to reduce the pH to 6.5 or lower.

2. (Original) The process as set forth in claim 1 wherein the organic matter being preserved is the slurry contained in the pulper during the paper making process.

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3. (Original) The process as set forth in claim 1 wherein the organic matter being preserved is wet lap pulp.

4. (Original) The process as set forth in claim 1 wherein the organic matter being preserved is wood chip piles.

5. (Original) The process as set forth in claim 1 wherein the organic matter being preserved is cut lumber.

6. (Original) The process as set forth in claim 1 wherein the organic matter being preserved is corn starch.

7. (Original) The process as set forth in claim 1 wherein the organic matter being preserved is the leaves of living plants.

8. (Original) The process as set forth in claim 1 wherein the filter through which the decomposition resistant hydrous cellulose pulp passes has opening of about 2 micrometers.

9. (Original) The process as set forth in claim 2 wherein the filter through which the decomposition resistant hydrous cellulose pulp passes has opening of about 2 micrometers.

10. (Original) The process as set forth in claim 1 wherein in the process for producing the decomposition resistant hydrous cellulose pulp a water soluble non-ionic emulsifier that meets the following emulsion stability standards is used:

ethoxylated aliphatic alcohols wherein the alcohol is a hydrophobic secondary alcohol having from 11 to 15 carbon atoms and wherein the average molar ratio of ethylene oxide to hydrophobic alcohol is in a range of 5:1 to 15:1.

11. (Original) The process as set forth in claim 2 wherein in the process for producing the decomposition resistant hydrous cellulose pulp a water soluble non-ionic emulsifier that meets the following emulsion stability standards is used:

ethoxylated aliphatic alcohols wherein the alcohol is a hydrophobic secondary alcohol having from 11 to 15 carbon atoms and wherein the average molar ratio of ethylene oxide to hydrophobic alcohol is in a range of 5:1 to 15:1.

12. (Original) The process as set forth in claim 3 wherein in the process for producing the decomposition resistant hydrous cellulose pulp a water soluble non-ionic emulsifier that meets the following emulsion stability standards is used:

ethoxylated aliphatic alcohols wherein the alcohol is a hydrophobic secondary alcohol having from 11 to 15 carbon atoms and wherein the average molar ratio of ethylene oxide to hydrophobic alcohol is in a range of 5:1 to 15:1.

13. (Original) The process as set forth in claim 4 wherein in the process for producing the decomposition resistant hydrous cellulose pulp a water soluble non-ionic emulsifier that meets the following emulsion stability standards is used:

ethoxylated aliphatic alcohols wherein the alcohol is a hydrophobic secondary alcohol having from 11 to 15 carbon atoms and wherein the average molar ratio of ethylene oxide to hydrophobic alcohol is in a range of 5:1 to 15:1.

14. (Original) The process as set forth in claim 1 wherein in the process for producing the decomposition resistant hydrous cellulose pulp a water soluble non-ionic emulsifier that meets the following emulsion stability standards is used:

ethoxylated alkyl phenols in which the ratio of moles of ethylene oxide per mole of ethylene oxide per mole of alkyl phenol is in the range of 7-8 inclusive.

15. (Original) The process as set forth in claim 2 wherein in the process for producing the decomposition resistant hydrous cellulose pulp a water soluble non-ionic emulsifier that meets the following emulsion stability standards is used:

ethoxylated alkyl phenols in which the ratio of moles of ethylene oxide per mole or ethylene oxide per mole of alkyl phenol is in the range of 7-8 inclusive.

16. (Original) The process as set forth in claim 3 wherein in the process for producing the decomposition resistant hydrous cellulose pulp a water soluble non-ionic emulsifier that meets the following emulsion stability standards is used:

ethoxylated alkyl phenols in which the ratio of moles of ethylene oxide per mole or ethylene oxide per mole of alkyl phenol is in the range of 7-8 inclusive.

17. (Original) The process as set forth in claim 4 wherein in the process for producing the decomposition resistant hydrous cellulose pulp a water soluble non-ionic emulsifier that meets the following emulsion stability standards is used:

ethoxylated alkyl phenols in which the ratio of moles of ethylene oxide per mole or ethylene oxide per mole of alkyl phenol is in the range of 7-8 inclusive.

18. (Original) The process as set forth in claim 1 wherein in the process for producing the decomposition resistant hydrous cellulose pulp a water soluble non-ionic emulsifier that meets the following emulsion stability standards is used:

ethoxylated alkyl phenols in which the alkyl substituent is linear and the fatty acid amide diethanol amine condensates derived from a member selected from the group consisting of myristic acid, lauric acid, palmitic acid, stearic acid and mixtures thereof.

19. (Original) The process as set forth in claim 2 wherein in the process for producing the decomposition resistant hydrous cellulose pulp a water soluble non-ionic emulsifier that meets the following emulsion stability standards is used:

ethoxylated alkyl phenols in which the alkyl substituent is linear and the fatty acid amide diethanol amine condensates derived from a member selected from the group consisting of myristic acid, lauric acid, palmitic acid, stearic acid and mixtures thereof.

20. (Original) The process as set forth in claim 3 wherein in the process for producing the decomposition resistant hydrous cellulose pulp a water soluble non-ionic emulsifier that meets the following emulsion stability standards is used:

ethoxylated alkyl phenols in which the alkyl substituent is linear and the fatty acid amide diethanol amine condensates derived from a member selected from the group consisting of myristic acid, lauric acid, palmitic acid, stearic acid and mixtures thereof.

21. (Original) The process as set forth in claim 4 wherein in the process for producing the decomposition resistant hydrous cellulose pulp a water soluble non-ionic emulsifier that meets the following emulsion stability standards is used:

ethoxylated alkyl phenols in which the alkyl substituent is linear and the fatty acid amide diethanol amine condensates derived from a member selected from the group consisting of myristic acid, lauric acid, palmitic acid, stearic acid and mixtures thereof.

22. (Original) A preservative for organic matter comprising: a filtrate of a decomposition resistant hydrous

cellulose pulp material;

potassium sorbate, in the range of 0.1%-5% by weight of the filtrate; and

citric acid sufficient to lower the pH to 6.5 or lower.

23. (Original) The preservative as set forth in claim 22 wherein in the organic matter being preserved is wet lap pulp.

24. (Original) The preservative as set forth in claim 22 wherein the filter through which the decomposition resistant hydrous cellulose pulp passes has opening of about 2 micrometers.

25. (Original) The preservative as set forth in claim 23 wherein the filter through which the decomposition resistant hydrous cellulose pulp passes has opening of about 2 micrometers.

26. (Original) The preservative as set forth in claim 22 wherein in the process for producing the decomposition resistant hydrous cellulose pulp a water soluble non-ionic emulsifier that meets the following emulsion stability standards is used:

ethoxylated aliphatic alcohols wherein the alcohol is a hydrophobic secondary alcohol having from 11 to 15 carbon atoms and wherein the average molar ratio of ethylene oxide to hydrophobic alcohol is in a range of 5:1 to 15:1.

27. (Original) The preservative as set forth in claim 23 wherein in the process for producing the decomposition resistant hydrous cellulose pulp a water soluble non-ionic emulsifier that meets the following emulsion stability standards is used:

ethoxylated aliphatic alcohols wherein the alcohol is a hydrophobic secondary alcohol having from 11 to 15 carbon atoms and wherein the average molar ratio of ethylene oxide to hydrophobic alcohol is in a range of 5:1 to 15:1.

28. (Original) The preservative as set forth in claim 24 wherein in the process for producing the decomposition resistant hydrous cellulose pulp a water soluble non-ionic emulsifier that meets the following emulsion stability standards is used:

ethoxylated aliphatic alcohols wherein the alcohol is a hydrophobic secondary alcohol having from 11 to 15 carbon atoms and wherein the average molar ratio of ethylene oxide to hydrophobic alcohol is in a range of 5:1 to 15:1.

29. (Original) The preservative as set forth in claim 25 wherein in the process for producing the decomposition resistant hydrous cellulose pulp a water soluble non-ionic emulsifier that meets the following emulsion stability standards is used:

ethoxylated aliphatic alcohols wherein the alcohol is a hydrophobic secondary alcohol having from 11 to 15 carbon atoms and wherein the average molar ratio of ethylene oxide to hydrophobic alcohol is in a range of 5:1 to 15:1.

30. (Original) The preservative as set forth in claim 22 wherein in the process for producing the decomposition resistant hydrous cellulose pulp a water soluble non-ionic emulsifier that meets the following emulsion stability standards is used:

ethoxylated alkyl phenols in which the ratio of moles of ethylene oxide per mole or ethylene oxide per mole of alkyl phenol is in the range of 7-8 inclusive.

31. (Original) The preservative as set forth in claim 23 wherein in the process for producing the decomposition resistant hydrous cellulose pulp a water soluble non-ionic emulsifier that meets the following emulsion stability standards is used:

ethoxylated alkyl phenols in which the ratio of moles of ethylene oxide per mole or ethylene oxide per mole of alkyl phenol is in the range of 7-8 inclusive.

32. (Original) The preservative as set forth in claim 24 wherein in the process for producing the decomposition resistant hydrous cellulose pulp a water soluble non-ionic emulsifier that meets the following emulsion stability standards is used:

ethoxylated alkyl phenols in which the ratio of moles of ethylene oxide per mole or ethylene oxide per mole of alkyl phenol is in the range of 7-8 inclusive.

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33. (Original) The preservative as set forth in claim 25 wherein in the process for producing the decomposition resistant hydrous cellulose pulp a water soluble non-ionic emulsifier that meets the following emulsion stability standards is used:

ethoxylated alkyl phenols in which the ratio of moles of ethylene oxide per mole of ethylene oxide per mole of alkyl phenol is in the range of 7-8 inclusive.

34. (Original) The preservative as set forth in claim 22 wherein in the process for producing the decomposition resistant hydrous cellulose pulp a water soluble non-ionic emulsifier that meets the following emulsion stability standards is used:

ethoxylated alkyl phenols in which the alkyl substituent is linear and the fatty acid amide diethanol amine condensates derived from a member selected from the group consisting of myristic acid, lauric acid, palmitic acid, stearic acid and mixtures thereof.

35. (Original) The preservative as set forth in claim 23 wherein in the process for producing the decomposition resistant hydrous cellulose pulp a water soluble non-ionic emulsifier that meets the following emulsion stability standards is used:

ethoxylated alkyl phenols in which the alkyl substituent is linear and the fatty acid amide diethanol amine condensates derived from a member selected from the group consisting of myristic acid, lauric acid, palmitic acid, stearic acid and mixtures thereof.

36. (Original) The preservative as set forth in claim 24 wherein in the process for producing the decomposition resistant hydrous cellulose pulp a water soluble non-ionic emulsifier that meets the following emulsion stability standards is used:

ethoxylated alkyl phenols in which the alkyl substituent is linear and the fatty acid amide diethanol amine condensates derived from a member selected from the group consisting of myristic acid, lauric acid, palmitic acid, stearic acid and mixtures thereof.

37. (Original) The preservative as set forth in claim 31 wherein in the process for producing the decomposition resistant hydrous cellulose pulp a water soluble non-ionic emulsifier that meets the following emulsion stability standards is used:

ethoxylated alkyl phenols in which the alkyl substituent is linear and the fatty acid amide diethanol amine condensates derived from a member selected from the group consisting of myristic acid, lauric acid, palmitic acid, stearic acid and mixtures thereof.

38-59. (Cancelled).